WHAT IS CLAIMED IS:

1. A method of decreasing the amount of sulfuric acid or aluminum sulfate hydrate required by a pulping or papermaking process, comprising adding to a process stream or solution of said pulping or papermaking process an effective amount of urea sulfate.

2. The method of claim 1, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of between about 1:4 and about 4:1.

3. The method of claim 2, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of between about 2.5:1 and about 0.25:1.

4. The method of claim 3, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of between about 2.0:1 and about 0.5:1.

5. The method of claim 4, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of about 1:1.

6. The method of claim 1, wherein the process stream or solution is selected from the group consisting of a prehydrolysis solution, a pulping solution, a pulping effluent stream, a recycled pulping process stream, a washing solution or effluent, a bleaching solution, a sizing solution, a dyeing solution, and a papermaking effluent stream.

7. A method of adjusting the pH of a process stream or solution of a pulping or papermaking process comprising adding thereto a pH adjusting effective amount of urea sulfate.

8. The method of claim 7, wherein the urea sulfate is present in a molar ratio of

urea to sulfuric acid of between about 1:4 and about 4:1.

9. The method of claim 8, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of between about 2.5:1 and about 0.25:1.

10. The method of claim 9, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of between about 2.0:1 and about 0.5:1.

11. The method of claim 10, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of about 1:1.

12. The method of claim 7, wherein the process stream or solution is selected from the group consisting of a prehydrolysis solution, a pulping solution, a pulping effluent stream, a recycled pulping process stream, a washing solution or effluent, a bleaching solution, a sizing solution, a dyeing solution, and a papermaking effluent stream.

13. A method of flocculating or precipitating a material in a process stream or solution of a pulping or papermaking process, comprising adding thereto an effective amount of urea sulfate.

14. The method of claim 13, wherein the material is fiber, dyestuffs, sizing, filler particles, resins, or pitch.

15. The method of claim 13, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of between about 1:4 and about 4:1.

16. The method of claim 15, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of between about 2.5:1 and about 0.25:1.

17. The method of claim 16, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of between about 2.0:1 and about 0.5:1.

18. The method of claim 17, wherein the urea sulfate is present in a molar ratio of urea to sulfuric acid of about 1:1.

19. The method of claim 13, wherein the process stream or solution is selected from the group consisting of a prehydrolysis solution, a pulping solution, a pulping effluent stream, a recycled pulping process stream, a washing solution or effluent, a bleaching solution, a sizing solution, a dyeing solution, and a papermaking effluent stream.

20. A method of decreasing the amount of hydrochloric acid required by a pulping or papermaking process, comprising adding to a process stream or solution of said pulping or papermaking process an effective amount of urea hydrochloride.

21. The method of claim 20, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 1:4 and about 4:1.

22. The method of claim 21, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 2.5:1 and about 0.25:1.

23. The method of claim 22, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 2.0:1 and about 0.5:1.

24. The method of claim 23, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of about 1:1.

25. The method of claim 23, wherein the urea hydrochloride is present in a molar

ratio of urea to hydrochloric acid of between about 1.5:1 and 1:1.

26. The method of claim 23, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 1.5:1 and 1.2:1.

27. The method of claim 20, wherein the process stream or solution is selected from the group consisting of a prehydrolysis solution, a pulping solution, a pulping effluent stream, a recycled pulping process stream, a washing solution or effluent, a bleaching solution, a sizing solution, a dyeing solution, and a papermaking effluent stream.

28. A method of adjusting the pH of a process stream or solution of a pulping or papermaking process comprising adding thereto a pH adjusting effective amount of urea hydrochloride.

29. The method of claim 28, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 1:4 and about 4:1.

30. The method of claim 29, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 2.5:1 and about 0.25:1.

31. The method of claim 30, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 2.0:1 and about 0.5:1.

32. The method of claim 31, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of about 1:1.

33. The method of claim 31, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 1.5:1 and 1:1.

34. The method of claim 33, wherein the urea hydrochloride is present in a molar ratio of urea to hydrochloric acid of between about 1.5:1 and 1.2:1.

35. The method of claim 28, wherein the process stream or solution is selected from the group consisting of a prehydrolysis solution, a pulping solution, a pulping effluent stream, a recycled pulping process stream, a washing solution or effluent, a bleaching solution, a sizing solution, a dyeing solution, and a papermaking effluent stream.